

Human Kallikrein 1 / KLK-1 Protein, His Tag (active enzyme, MALS verified)

Catalog # KL1-H52H3



BIOSYSTEMS
Acro

Synonym

KLK1, Kallikrein-1, KLKR, Klk6

Source

Human Kallikrein 1 Protein, His Tag (KL1-H52H3) is expressed from human 293 cells (HEK293). It contains AA Ile 25 - Ser 262 (Accession # [P06870-1](#)).

Predicted N-terminus: Val 23

Molecular Characterization

Kallikrein 1 (Ile 25 - Ser 262)
P06870-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus, and an N-terminal human KLK-5 propeptide (Val 23 - Arg 66). The protein has a calculated MW of 32.7 kDa. The protein migrates as 38-53 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in 50 mM Tris, 150 mM NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

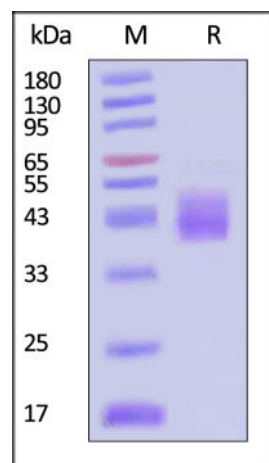
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

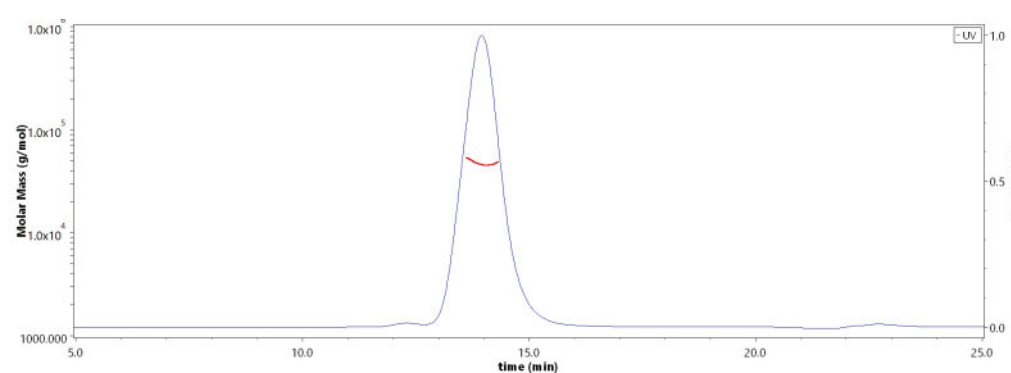


Human Kallikrein 1 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity

Measured by its ability to cleave a fluorescent peptide substrate Pro-Phe-Arg--7-amido-4-methylcoumarin (PFR-AMC). The specific activity is $>7,000$ pmol/min/ μg (QC tested).

SEC-MALS



The purity of Human Kallikrein 1 Protein, His Tag (Cat. No. KL1-H52H3) is more than 90% and the molecular weight of this protein is around 40-55 kDa verified by SEC-MALS.

[Report](#)

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Background

Kallikreins are a subgroup of serine proteases having diverse physiological functions. Growing evidence suggests that many kallikreins are implicated in carcinogenesis and some have potential as novel cancer and other disease biomarkers. This gene is one of the fifteen kallikrein subfamily members located in a cluster on chromosome 19. This protein is functionally conserved in its capacity to release the vasoactive peptide, Lys-bradykinin, from low molecular weight kininogen. [provided by RefSeq, Jul 2008]

Clinical and Translational Updates

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